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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,445	02/23/2004	Alan Devoe	DEVOE-26	8275
26875	7590	04/04/2005	EXAMINER	
WOOD, HERRON & EVANS, LLP			MAYES, MELVIN C	
2700 CAREW TOWER			ART UNIT	
441 VINE STREET			PAPER NUMBER	
CINCINNATI, OH 45202			1734	

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/784,445

Applicant(s)

DEVOE ET AL

Examiner

Melvin Curtis Mayes

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1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 12, 18-23, 29, 31-36, 38, 42 and 43 is/are rejected.
- 7) ☒ Claim(s) 7-11, 13-17, 24-28, 30, 37 and 39-41 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/3/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Double Patenting*

(1)

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

(2)

Claims 1-6, 12, 18-23 and 29 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 13 of U.S. Patent No. 6,695,940. Although the conflicting claims are not identical, they are not patentably distinct from each other because

U.S. Patent No. 6,695,940 discloses a method of making a tubular reaction chamber of a fuel cell comprising: wrapping a first thin planar green ceramic having a metallization surface around a mandrel to form a first tubular surface; wrapping a thin planar plain green ceramic surface around the mandrel over the first green ceramic to form a second tubular surface; wrapping a third planar green ceramic having a metallization surface around the mandrel to form a third tubular surface; laminating together under pressure the wrappings while still wrapped about the mandrel; and then, in either sequence, both separating the mandrel; and sintering the

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laminated wraps, where the metallization of one is suitable an anode and the metallization of the other is suitably a cathode.

By wrapping first and third green ceramic having metallization for anode and cathode, first and second electrode materials are obviously wrapped around the mandrel, as claimed.

***Claim Rejections - 35 USC § 103***

(3)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

(4)

Claims 18-21, 23 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over IBM Technical Disclosure Bulletin "Improved Construction of Bender Element Squeeze Bearings."

IBM Technical Disclosure Bulletin "Improved Construction of Bender Element Squeeze Bearings" discloses a method of making a ceramic tube having electrodes comprising: winding green sheet material on a mandrel to form an underlayer; brushing the underlayer with Mo paste to form a conductive layer to form a cylinder; wrapping a second green sheet tape on the cylinder; firing; and adding metallic paste electrodes on the ceramic tube.

By brushing the underlayer with Mo paste to form a cylinder before wrapping second green sheet tape on the cylinder, a first electrode tube is obviously provided, as claimed.

(5)

Claims 31, 32, 34-36, 38,42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2-8008 Abstract.

JP 2-8008 Abstract discloses a method of making a ceramic tube for a variety of purposes comprising: winding an inner sheet for sticking prevention, such as sheet of synthetic resin, around a bar (mandrel); winding ceramic sheet material around the inner sheet giving multi-layers; winding an outer sheet for sticking prevention around the ceramic material; pressing; removing the bar and inner and outer sheets; and firing. Ceramic tube of differing length, thickness and inside diameter may be obtained.

Burning away the inner and outer sheets of synthetic resin during the firing of the ceramic instead of removing the inner and outer sheets before firing would have been obvious to one as alternative methods of removing the inner and outer sheets from the ceramic. The particular thickness of the ceramic tube, such as claimed in Claim 34 and 35, would have been obvious to one of ordinary skill as dependent on the desired use of the ceramic tube, as JP '008 Abstract discloses that ceramic tube of differing length, thickness and inside diameter may be obtained.

(6)

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2-8008 Abstract as applied to claim 31 above, and further in view of Kendall 5,827,620.

Kendall teaches that a fuel cell is made from a fired ceramic tube by coating the inside and the outside of the tube with material to form anode and cathode electrodes (col. 6, lines 27-44).

It would have been obvious to one of ordinary skill in the art to have been obvious to one of ordinary skill in the art to have modified the method of JP 2-8008 Abstract for making a ceramic tube for a variety of purposes by coating the inside and outside of the fired ceramic tube with material to form electrodes; as taught by Kendall to form a fuel cell by providing a fired ceramic tube with anode and cathode electrodes.

***Allowable Subject Matter***

(7)

Claims 7-11, 13-17, 24-28, 30, 37 and 39-41 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

(8)

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(9)

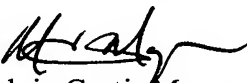
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin Curtis Mayes whose telephone number is 571-272-1234. The examiner can normally be reached on Mon-Fri 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on 571-272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Melvin Curtis Mayes  
Primary Examiner  
Art Unit 1734

MCM  
April 1, 2005